IN THE SPECIFICATION

Kindly replace the paragraph beginning on page 1, line 6 with the following:

The ~~present invention~~ technology in the disclosure relates to a metallic material for solid-oxide fuel cells. Particularly, ~~the present invention~~ it relates to a metallic material (Fe-Cr alloy material) for interconnects of solid-oxide fuel cells having oxidation resistance in use at high temperatures and electrical conductivity, a fuel cell using the metallic material, and a method for producing the metallic material. The metallic material of the present invention can also be applied to peripheral members of the solid-oxide fuel cells required to have oxidation resistance, other fuel cells, and heat exchangers, reforming devices, and the like.

Kindly replace the paragraph beginning on page 6, line 23 with the following:

In a metallic material for interconnects of solid-oxide fuel cells used in an environment of 700°C to 1000°C, particularly 700°C to 900°C, ~~which is a target of the present invention,~~ a protective oxide layer must be formed for maintaining the oxidation resistance. However, an interconnect is a member required to have electrical conductivity, and thus the oxide layer must have electrical conductivity and must be thinned.

Kindly replace the paragraph beginning on page 7, line 17 with the following:

~~An object of the present invention is~~ It could therefore be advantageous to provide an inexpensive metallic material (Fe-Cr alloy) for interconnects of solid-oxide fuel cell, and a fuel cell using the metallic material, the metallic material having an excellent oxidation resistance at a high temperature of 700°C to 900°C, i.e., a low oxidation rate, excellent spalling resistance of the formed oxide layer, high electrical conductivity, and a small difference in thermal expansion from an electrolyte.

Kindly replace the heading on page 8, line 2 with the following:

~~Disclosure of the Invention~~ Summary

Kindly replace the paragraph beginning on page 8, line 13 with the following:

~~The inventors~~ We carried out extensive study for solving the above problem with attention to the influence of the added elements on the oxidation resistance. As a result, it was found that the combined addition of Mo and Nb can significantly improve the oxidation resistance. The most important characteristic ~~of the present invention~~ is that a large amount of intermetallic compound (one of precipitate) is precipitated in the grain boundaries of a base material in a long-term high-temperature operating environment, which is an operating environment of solid-oxide fuel cells, and the precipitate can control (suppress) diffusion of each element to improve the oxidation resistance. Namely, ~~it was~~ we found that although the single addition of Mo or Nb also causes precipitation of the intermetallic compound, the combined addition of both elements causes the precipitation of a large amount of the intermetallic compound in the grain boundaries of the base material to control (suppress) diffusion of each of elements such as Cr, Fe, Si, and the like, thereby significantly improving the oxidation resistance.

Kindly replace the paragraph beginning on page 9, line 8 with the following:

~~It was~~ We further found that the problem characteristic of a Mo-Nb system, i.e., the problem of increasing the spalling amount of the oxide at a high temperature, can be prevented by adding Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Zr, or Hf. Even when such an element is added, the formed oxide layer is mainly composed of Cr_2O_3, and thus electrical resistance is not much increased, thereby purely suppressing only a weight increase by oxidation and suppressing an increase in electrical resistance.

Kindly replace the paragraph beginning on page 9, line 17 with the following:

~~The present invention achieved on the basis of the above findings relates to~~ We provide a metallic material for fuel cells, comprising 0.20 percent by mass or less of C, 0.02 to 1.0 percent by mass of Si, 2.0 percent by mass or less of Mn, 10 to 40 percent by mass of Cr, 0.03 to 5.0 percent by mass of Mo, 0.1 to 3.0 percent by mass of Nb, at least one of element selection from Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Zr, and Hf in a total of 1.0 percent by mass or less, and the balance composed of Fe and inevitable impurities, wherein $0.1 \leq Mo/Nb \leq 30$ is satisfied.

Kindly replace the paragraph beginning on page 10, line 2 with the following:

The metallic material for fuel cells ~~of the present invention~~ further comprises a precipitate containing Fe, Cr and Si at contents on the basis of the metallic material satisfying the following equation (1):

[precipitated Fe]+[precipitated Cr]+[precipitated Si] ≥ 0.01 percent by mass ... (1)

wherein,

[precipitated Fe]: content (percent by mass) of Fe in the precipitate;

[precipitated Cr]: content (percent by mass) of Cr in the precipitate; and

[precipitated Si]: content (percent by mass) of Si in the precipitate.

Kindly replace the paragraph beginning on page 10, line 17 with the following:

When the metallic material for fuel cells ~~of the present invention~~ is used at a cell operating temperature of 800°C for at least 1000 hours or more, the Fe, Cr and Si contents in the precipitate on the basis of the metallic material satisfy the following equation (2):

[precipitated Fe]+[precipitated Cr]+[precipitated Si] ≥ 0.03 percent by mass ... (2)

wherein,

[precipitated Fe]: content (percent by mass) of Fe in the precipitate;

[precipitated Cr]: content (percent by mass) of Cr in the precipitate; and

[precipitated Si]: content (percent by mass) of Si in the precipitate.

Kindly replace the paragraph beginning on page 11, line 8 with the following:

The metallic material for fuel cells ~~of the present invention~~ is a hot-rolled material or a cold-rolled material.

Kindly replace the paragraph beginning on page 11, line 10 with the following:

The metallic material for fuel cells ~~of the present invention~~ may be further subjected to a precipitation treatment so that the Fe, Cr and Si contents in the precipitate on the basis of the metallic material satisfy the following equation (3):

[precipitated Fe]+[precipitated Cr]+[precipitated Si] $\geq$ 0.02 percent by mass ... (3)

wherein,

[precipitated Fe]: content (percent by mass) of Fe in the precipitate;

[precipitated Cr]: content (percent by mass) of Cr in the precipitate; and

[precipitated Si]: content (percent by mass) of Si in the precipitate.

Kindly replace the paragraph beginning on page 12, line 1 with the following:

The metallic material for fuel cells ~~of the present invention~~ is preferably a heat-resistant material for solid-oxide fuel cells, and more preferably a heat-resistant material for interconnects of solid-oxide fuel cells.

Kindly replace the paragraph beginning on page 12, line 5 with the following:

~~The present invention~~ <u>We</u> also ~~provides~~ <u>provide</u> a solid-oxide fuel cell using the metallic material for fuel cells.

Kindly replace the paragraph beginning on page 12, line 7 with the following:

~~The present invention~~ We further ~~provides~~ provide a method for producing a metallic material for fuel cells, the method comprising re-heating a steel material according demand, hot-rolling the steel material, and then annealing and picking the hot-rolled sheet according demand, wherein the steel material is adjusted to contain 0.20 percent by mass or less of C, 0.02 to 1.0 percent by mass of Si, 2.0 percent by mass or less of Mn, 10 to 40 percent by mass of Cr, 0.03 to 5.0 percent by mass of Mo, 0.1 to 3.0 percent by mass of Nb, at least one element selected from the group consisting of Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Zr, and Hf in a total of 1.0 percent by mass or less, and the balance composed of Fe and inevitable impurities, and $0.1 \leq Mo/Nb \leq 30$ is satisfied.

Kindly replace the paragraph beginning on page 12, line 20 with the following:

In the method for producing a metallic material for fuel cells ~~of the present invention~~, the metallic material for fuel cells further comprises a precipitate containing Fe, Cr and Si at contents on the basis of the metallic material satisfying the following equation (1):

[precipitated Fe]+[precipitated Cr]+[precipitated Si] ≥ 0.01 percent by mass ... (1)

wherein,

[precipitated Fe]: content (percent by mass) of Fe in the precipitate;

[precipitated Cr]: content (percent by mass) of Cr in the precipitate; and

[precipitated Si]: content (percent by mass) of Si in the precipitate.

Kindly replace the paragraph beginning on page 13, line 11 with the following:

The method for producing a metallic material for fuel cells ~~of the present invention~~ further comprises cold-rolling or cold-rolling, annealing and then pickling.

Kindly replace the paragraph beginning on page 13, line 14 with the following:

The method for producing a metallic material for fuel cells ~~of the present invention~~ further comprises performing a precipitation treatment of the metallic material for fuel cells so that the Fe, Cr and Si contents in the precipitate on the basis of the metallic material satisfy the following equation (3):

$$[\text{precipitated Fe}]+[\text{precipitated Cr}]+[\text{precipitated Si}] \geq 0.02 \text{ percent by mass} \quad \ldots (3)$$

wherein,

[precipitated Fe]: content (percent by mass) of Fe in the precipitate;

[precipitated Cr]: content (percent by mass) of Cr in the precipitate; and

[precipitated Si]: content (percent by mass) of Si in the precipitate.

Kindly replace the paragraph beginning on page 14, line 9 with the following:

In the method for producing a metallic material for fuel cells ~~of the present invention~~, the metallic material for fuel cells is used for solid-oxide fuel cells.

Kindly replace the paragraph beginning on page 14, line 12 with the following:

In the method for producing a metallic material for fuel cells ~~of the present invention~~, the metallic material for fuel cells is used for interconnects of solid-oxide fuel cells.

Kindly replace the heading on page 15, line 1 with the following:

~~Best Mode for Carrying Out the Invention~~ Detailed Description

Kindly replace the paragraph beginning on page 15, line 2 with the following:

The composition of a metallic material for interconnects of solid-oxide fuel cells ~~according to the present invention~~ will be described below.

Kindly replace the paragraph beginning on page 15, line 7 with the following:

The metallic material ~~of the present invention~~ comprises a composition containing a Fe-Cr alloy as a base, and Mo and Nb both of which are added to the base, so that Mo and Nb combine with Cr, Fe, and Si to precipitate a large amount of an intermetallic compound in the grain boundaries of a base material in a long-term high-temperature operating environment at 700°C to 900°C, which is an operating environment of solid-oxide fuel cells, thereby controlling a diffusion mechanism of each of the elements of Cr, Fe and Si and improving oxidation resistance. However, since the excessive addition of Mo and Nb deteriorates workability, the Mo and Nb contents are limited to 0.03 to 5.0 percent by mass and 0.1 to 3.0 percent by mass, respectively, and the ratio Mo/Nb is limited in the range of $0.1 \leq Mo/Nb \leq 30$. The reason for limiting the ratio Mo/Nb to this range is that when $Mo/Nb < 0.1$ or $Mo/Nb > 30$, the intermetallic compound is not sufficiently precipitated in the grain boundaries to fail to achieve the effect of improving the oxidation resistance. More preferably, Mo is 0.1 to 3.0 percent by mass, Nb is 0.1 to 2.0 percent by mass, and $0.5 \leq Mo/Nb \leq 30$.

Kindly replace the paragraph beginning on page 17, line 21 with the following:

Besides the above essential components, the metallic material ~~of the present invention~~ may contain the elements below according to demand.

Kindly replace the paragraph beginning on page 18, line 5 with the following:

Besides the above components, the metallic material contains Fe and inevitable impurities. However, when the contents of the impurities of P, S and N are 0.05 percent by mass or less, 0.05 percent by mass or less, and 0.5 percent by mass or less, respectively, each of the characteristics ~~of the present invention~~ is particularly not affected.

Kindly replace the paragraph beginning on page 18, line 12 with the following:

The most important characteristic ~~of the present invention~~ is that an intermetallic compound of Mo and Nb, which is a precipitate, is precipitated in the grain boundaries of the base material in a long-term high-temperature operating environment at 700°C to 900°C, which is an operating environment of solid-oxide fuel cells. Namely, a large amount of the intermetallic compound is precipitated in the grain boundaries in the long-term high-temperature operating environment at 700°C to 900°C, which is an operating environment of solid-oxide fuel cells, to control the diffusion mechanism of each of the elements such as Cr, Fe, and Si and improve the oxidation resistance. In the composition range ~~of the present invention~~, most of Fe, Cr and Si contained in the precipitate are contained in the intermetallic compound, and thus the amount of the intermetallic compound precipitated can be controlled by controlling the total content of the Fe, Cr and Si in the precipitate.

Kindly replace the paragraph beginning on page 21, line 23 with the following:

The target thermal expansion coefficient ~~of the present invention~~ is 13.0×10^{-6}/°C or less from 20°C to 900°C. With a thermal expansion coefficient of over 13.0×10^{-6}/°C from 20°C to 900°C, separation from an electrolyte possibly occurs due to a difference of thermal expansion. Therefore, the thermal expansion coefficient is preferably 13.0×10^{-6}/°C or less from 20°C to 900°C, and more preferably 12.6×10^{-6}/°C or less from 20°C to 900°C. In measurement of the thermal expansion coefficient, a sample of 20 mm × 5 mm was heated from 20° at a rate of 5°C/min in an argon atmosphere to measure the length L mm in the longitudinal direction when the temperature reached 900°C, and (L-20)/20 was divided by (900-20)°C to determine the thermal expansion coefficient. For each sample, three test pieces were measured, and the measurements were averaged.

Kindly replace the paragraph beginning on page 23, line 18 with the following:

Next, the method for producing the metallic material ~~of the present invention~~ will be described in brief.

Kindly replace the paragraph beginning on page 23, line 20 with the following:

As a method for melting the metallic material ~~of the present invention~~, any one of known conventional methods can be used, and thus the melting method is not particularly limited. For example, a steelmaking process preferably comprises forming molten steel in a converter, an electrical furnace, or the like, the molten steel being prepared in the above-described proper composition range; and then secondarily refining the steel by strongly stirred-vacuum oxygen decarbonization (SS-VOD). As a casing method, continuous casting is preferred from the viewpoint of productivity and quality. A slab obtained by casting is re-heated as occasion demands and then hot-rolled, and then the hot-rolled sheet is annealed at 700°C to 1200°C and then pickled.

Kindly replace the paragraph beginning on page 29, line 2 with the following:

First, the test results (800°C for 1000 hours) of oxidation resistance will be described. As shown in Table 2, in each of the material Nos. 2 to 12 and 36 to 47, the contents of C, Si, Mn, and Cr, and at least one selected from the group consisting of Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Zr, and Hf are within ~~the~~ <u>our</u> ranges ~~of the present invention~~, and a combination of Mo and Nb is added to the Fe-Cr alloy. Table 3 indicates that in any one of these materials, the Fe, Cr and Si contents on the basis of the metallic material in the precipitate of the metallic material before the oxidation resistance test satisfy the following equation (2):

[precipitated Fe]+[precipitated Cr]+[precipitated Si] $\geq$ 0.01 percent by mass ... (2)

wherein,

[precipitated Fe]: content (percent by mass) of Fe in the precipitate;

[precipitated Cr]: content (percent by mass) of Cr in the precipitate; and

[precipitated Si]: content (percent by mass) of Si in the precipitate.

Kindly replace the paragraph beginning on page 31, line 9 with the following:

On the other hand, when any one of C, Si, Mn, Cr, Mo, Nb and at least one selected from the group consisting of Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Zr, and Hf is not added or added at a content out of ~~the~~ <u>our</u> ranges ~~of the present invention~~, the material cannot be used as an interconnect, as shown in the examples below.

Kindly replace the paragraph beginning on page 37, line 18 with the following:

~~As described above, according to the present invention, a~~ <u>A</u> metallic material for interconnects of solid-oxide fuel cells having excellent oxidation resistance can be obtained by adding a combination of Mo and Nb, and at lease one element selected from the group consisting of Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Zr, and Hf to a Fe-Cr alloy. Also, the growth rate of an oxide layer at a high temperature can be decreased to effectively prevent spalling. By using the metallic material ~~of the present invention~~ for an interconnect of a solid-oxide fuel cell, deterioration in the performance of the cell can be suppressed even in use at a high temperature for a long time, and the cost of the fuel cell can be decreased. Therefore, the ~~present invention~~ <u>material</u> significantly contributes to practical use and size increase of fuel cells.

Kindly replace Table 1-1 on page 39 with the following:

Table 1-1

Steel No.	Chemical Composition (mass%)									Remarks
	C	Si	Mn	Fe	Cr	Mo	Nb	Other	Mo/Nb	
1	0.004	0.11	0.11	Bal.	19.65	1.98	0.34	-	5.82	Comp.
2	0.004	0.11	0.10	Bal.	19.65	1.97	0.33	La:0.05	5.97	Exam.
3	0.004	0.11	0.10	Bal.	19.98	2.04	0.37	Y:0.07	5.51	Exam.
4	0.005	0.13	0.10	Bal.	20.11	2.01	0.38	Zr:0.15	5.29	Exam.
5	0.004	0.10	0.10	Bal.	20.03	1.91	0.33	Hf:0.08	5.79	Exam.
6	0.004	0.11	0.11	Bal.	20.01	2.01	0.34	Sc:0.03	5.91	Exam.
7	0.006	0.12	0.10	Bal.	19.95	2.11	0.31	Ce:0.06	6.81	Exam.
8	0.006	0.11	0.13	Bal.	19.77	1.94	0.35	Pr:0.05	5.54	Exam.
9	0.004	0.11	0.13	Bal.	19.86	2.04	0.35	Nd:0.05	5.83	Exam.
10	0.005	0.10	0.12	Bal.	20.12	2.03	0.34	Pm:0.06	5.97	Exam.
11	0.004	0.10	0.12	Bal.	20.45	1.90	0.33	Sm:0.05	5.76	Exam.
12	0.003	0.13	0.11	Bal.	20.08	2.13	0.34	La:0.71	6.26	Exam.
13	0.150	0.10	0.12	Bal.	20.09	2.13	0.31	-	6.87	Comp.
14	0.004	0.05	0.11	Bal.	19.35	2.18	0.33	-	6.61	Comp.
15	0.005	0.72	0.13	Bal.	19.56	1.89	0.35	-	5.40	Comp.
16	0.005	0.13	1.83	Bal.	19.99	2.01	0.34	-	5.91	Comp.
17	0.005	0.11	0.11	Bal.	14.75	2.08	0.35	-	5.94	Comp.
18	0.005	0.12	0.11	Bal.	30.29	1.94	0.34	-	5.71	Comp.
19	0.004	0.11	0.12	Bal.	19.87	0.10	0.36	-	0.28	Comp.
20	0.005	0.10	0.13	Bal.	19.73	4.16	0.34	-	12.24	Comp.
21	0.004	0.12	0.11	Bal.	20.04	2.09	0.20	-	10.45	Comp.
22	0.004	0.11	0.12	Bal.	19.54	2.01	2.40	-	0.84	Comp.
23	0.004	0.09	0.11	Bal.	20.05	-	-	-	-	Comp.
24	0.300	0.09	0.12	Bal.	20.35	2.04	0.33	-	6.18	Comp.
25	0.006	3.50	0.09	Bal.	19.88	1.94	0.32	-	6.06	Comp.
26	0.004	0.10	2.20	Bal.	20.03	2.15	0.38	-	5.66	Comp.
27	0.006	0.12	0.09	Bal.	6.24	1.99	0.35	-	5.69	Comp.
28	0.005	0.10	0.12	Bal.	45.22	2.02	0.36	-	5.61	Comp.
29	0.005	0.11	0.10	Bal.	20.12	6.11	0.34	-	17.97	Comp.
30	0.004	0.12	0.12	Bal.	19.45	1.91	4.05	-	0.47	Comp.
31	0.005	0.11	0.13	Bal.	20.18	0.03	0.39	-	0.08	Comp.
32	0.006	0.09	0.11	Bal.	19.75	3.64	0.12	-	30.33	Comp.
33	0.024	0.42	0.51	Bal.	21.94	-	-	La:0.03 Zr:0.24	-	Conventional steel No. 5 of JP9-157801
34	0.030	0.45	0.63	Bal.	24.10	-	-	Hf:0.15 Y:0.02	-	Conventional steel No. 3 of JP10-280103

Exam.: Example ~~of this invention~~
Comp.: Comparative Example

Kindly replace Table 1-2 on page 40 with the following:

Table 1-2

Steel No.	Chemical Composition (mass%)									Remarks
	C	Si	Mn	Fe	Cr	Mo	Nb	Other	Mo/Nb	
35	0.024	0.15	0.16	Bal.	21.80	-	-	La:0.03 Zr:0.27	-	Comp.
36	0.145	0.11	0.09	Bal.	19.87	2.01	0.35	La:0.06	5.74	Exam.
37	0.005	0.05	0.12	Bal.	20.11	1.97	0.34	La:0.04	5.79	Exam.
38	0.004	0.81	0.09	Bal.	20.06	1.99	0.33	La:0.05	6.03	Exam.
39	0.005	0.12	1.45	Bal.	19.87	1.98	0.33	La:0.05	6.00	Exam.
40	0.004	0.09	0.12	Bal.	14.87	2.11	0.34	La:0.06	6.21	Exam.
41	0.004	0.11	0.13	Bal.	30.32	2.01	0.32	La:0.05	6.28	Exam.
42	0.005	0.12	0.13	Bal.	19.74	0.11	0.37	La:0.07	0.30	Exam.
43	0.004	0.11	0.09	Bal.	20.01	4.21	0.32	La:0.05	13.16	Exam.
44	0.005	0.11	0.10	Bal.	19.98	2.01	0.21	La:0.06	9.57	Exam.
45	0.005	0.13	0.09	Bal.	19.99	1.94	2.40	La:0.03	0.81	Exam.
46	0.004	0.13	0.11	Bal.	19.58	4.35	0.15	La:0.04	29.00	Exam.
47	0.005	0.11	0.11	Bal.	20.08	0.30	0.50	La:0.05	0.6	Exam.
48	0.005	0.11	0.09	Bal.	20.12	-	-	La:0.03	-	Comp.
49	0.304	0.10	0.12	Bal.	19.95	1.94	0.38	La:0.05	5.11	Comp.
50	0.003	3.76	0.11	Bal.	20.18	1.98	0.35	La:0.07	5.66	Comp.
51	0.004	0.11	2.10	Bal.	20.13	2.03	0.32	La:0.04	6.34	Comp.
52	0.005	0.11	0.10	Bal.	6.19	2.12	0.35	La:0.03	6.06	Comp.
53	0.006	0.10	0.11	Bal.	45.58	2.08	0.33	La:0.05	6.30	Comp.
54	0.005	0.09	0.11	Bal.	20.20	6.32	0.32	La:0.08	19.75	Comp.
55	0.005	0.11	0.09	Bal.	19.87	2.11	4.05	La:0.03	0.52	Comp.
56	0.004	0.09	0.12	Bal.	19.91	0.03	0.41	La:0.05	0.07	Comp.
57	0.006	0.09	0.10	Bal.	19.81	3.71	0.11	La:0.04	33.73	Comp.

Exam.: Example ~~of this invention~~
Comp.: Comparative Example
(Note): "-" represents no addition.

Kindly replace Table 2-2 on page 42 with the following:

Table 2-2

Steel No.	Test conditions: 800°Cx1000 hr			Test conditions: 1000°Cx600 hr		Remarks
	Oxide	Weight increase by oxidation (g/m^2)	Spalling resistance	Weight increase by oxidation (g/m^2)	Spalling resistanc e	
34	$(Mn,Cr)_3O_4$, Cr_2O_3	11.5	○	90.5	○	Conventional steel No. 3 of JP10-280101
35	$(Mn,Cr)_3O_4$, Cr_2O_3	10.5	○	88.4	○	Comp.
36	$(Mn,Cr)_3O_4$, Cr_2O_3	2.4	○	74.5	○	Exam.
37	$(Mn,Cr)_3O_4$, Cr_2O_3	1.6	○	69.4	○	Exam.
38	$(Mn,Cr)_3O_4$, Cr_2O_3	2.1	○	70.1	○	Exam.
39	$(Mn,Cr)_3O_4$, Cr_2O_3	9.8	○	75.4	○	Exam.
40	$(Mn,Cr)_3O_4$, Cr_2O_3	1.4	○	68.7	○	Exam.
41	$(Mn,Cr)_3O_4$, Cr_2O_3	1.7	○	69.1	○	Exam.
42	$(Mn,Cr)_3O_4$, Cr_2O_3	2.2	○	75.9	○	Exam.
43	$(Mn,Cr)_3O_4$, Cr_2O_3	2.3	○	76.4	○	Exam.
44	$(Mn,Cr)_3O_4$, Cr_2O_3	1.9	○	68.9	○	Exam.
45	$(Mn,Cr)_3O_4$, Cr_2O_3	1.6	○	68.2	○	Exam.
46	$(Mn,Cr)_3O_4$, Cr_2O_3	2.1	○	74.2	○	Exam.
47	$(Mn,Cr)_3O_4$, Cr_2O_3	2.2	○	73.1	○	Exam.
48	$(Mn,Cr)_3O_4$, Cr_2O_3	3.1	○	106.7	○	Comp.
49	$(Mn,Cr)_3O_4$, Cr_2O_3	3.2	○	110.3	○	Comp.
50	$(Mn,Cr)_3O_4$, Cr_2O_3	3.3	○	101.8	○	
51	Mn_2O_3, $(Mn,Cr)_3O_4$, Cr_2O_3	16.6	○	138.9	○	Comp.
52	$(Mn,Cr)_3O_4$, Cr_2O_3, Fe_3O_4,	100≤	○	-	○	Comp.
53	$(Mn,Cr)_3O_4$, Cr_2O_3	3.4	○	103.2	○	Comp.
54	$(Mn,Cr)_3O_4$, Cr_2O_3	3.6	○	104.5	○	Comp.
55	$(Mn,Cr)_3O_4$, Cr_2O_3	3.2	○	111.7	○	Comp.
56	$(Mn,Cr)_3O_4$, Cr_2O_3	3.3	○	118.9	○	Comp.
57	$(Mn,Cr)_3O_4$, Cr_2O_3	3.4	○	107.4	○	Comp.

Exam.: Example ~~of this invention~~
Comp.: Comparative Example
* A minus value of weight increase by oxidation represents the occurrence of spalling of a layer.

Kindly replace Table 3-1 on page 43 with the following:

Table 3-1

Steel No.	[precipitated Fe]+[precipitated Cr]+[precipitated Si] (mass %)		Thermal expansion coefficient (10^{-6}/°C)	Electrical resistance (mΩ·cm²)	Remarks
	Before oxidation resistance test	After oxidation resistance test			
1	0.03	0.51	12.6	26	Comp.
2	0.03	0.49	12.6	26	Exam.
3	0.03	0.52	12.5	27	Exam.
4	0.03	0.51	12.5	29	Exam.
5	0.03	0.48	12.4	29	Exam.
6	0.03	0.53	12.5	29	Exam.
7	0.04	0.55	12.6	28	Exam.
8	0.03	0.51	12.5	26	Exam.
9	0.03	0.48	12.6	27	Exam.
10	0.03	0.48	12.4	25	Exam.
11	0.03	0.48	12.5	25	Exam.
12	0.03	0.46	12.6	30	Exam.
13	0.04	0.51	12.5	45	Comp.
14	0.04	0.55	12.6	30	Comp.
15	0.03	0.49	12.4	31	Comp.
16	0.03	0.48	12.5	114	Comp.
17	0.04	0.53	12.5	25	Comp.
18	0.03	0.50	12.4	26	Comp.
19	0.01	0.04	12.6	42	Comp.
20	0.05	0.59	12.6	41	Comp.
21	0.02	0.03	12.5	29	Comp.
22	0.06	0.69	12.5	26	Comp.
23	0.005	0.01	12.5	52	Comp.
24	0.03	0.48	12.6	51	Comp.
25	0.05	0.54	12.4	152	Comp.
26	0.04	0.51	12.5	128	Comp.
27	0.03	0.50	12.5	-	Comp.
28	0.07	0.71	12.4	55	Comp.
29	0.06	0.63	12.6	56	Comp.
30	0.07	0.72	12.6	53	Comp.
31	0.007	0.21	12.5	51	Comp.
32	0.009	0.19	12.5	59	Comp.
33	0.005	0.03	13.5	320	Conventional steel No. 5 of JP9-15780
34	0.006	0.03	13.4	304	Conventional steel No. 3 of JP10-280103
35	0.004	0.02	13.2	298	Comp.
36	0.04	0.47	12.5	42	Exam.

Exam.: Example ~~of this invention~~
Comp.: Comparative Example

Kindly replace Table 3-2 on page 44 with the following:

Table 3-2

Steel No.	[precipitated Fe]+[precipitated Cr]+[precipitated Si] (mass %)		Thermal expansion coefficient (10^{-6}/°C)	Electrical resistance ($m\Omega \cdot cm^2$)	Remarks
	Before oxidation resistance test	After oxidation resistance test			
37	0.04	0.51	12.6	31	Exam.
38	0.03	0.48	12.4	32	Exam.
39	0.03	0.45	12.5	49	Exam.
40	0.04	0.55	12.5	24	Exam.
41	0.03	0.42	12.4	28	Exam.
42	0.01	0.04	12.6	30	Exam.
43	0.05	0.59	12.6	32	Exam.
44	0.02	0.03	12.5	29	Exam.
45	0.06	0.54	12.5	26	Exam.
46	0.01	0.03	12.6	31	Exam.
47	0.01	0.04	12.4	33	Exam.
48	0.006	0.01	12.6	54	Comp.
49	0.03	0.45	12.5	53	Comp.
50	0.05	0.56	12.4	179	Comp.
51	0.04	0.49	12.5	125	Comp.
52	0.03	0.51	12.5	-	Comp.
53	0.06	0.70	12.4	56	Comp.
54	0.07	0.65	12.6	54	Comp.
55	0.06	0.71	12.5	51	Comp.
56	0.005	0.20	12.6	53	Comp.
57	0.01	0.19	12.5	59	Comp.

Exam.: Example ~~of this invention~~
Comp.: Comparative Example